

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (currently amended) A system for detecting physiological stress in a subject, the system comprising:

a camera for producing an image of a portion of the subject, the image being comprised at least in part from either a first spectral reflection of light from skin of the subject when the subject is not experiencing stress, or a second spectral reflection of light when the subject is experiencing stress, the second spectral reflection of light resulting from increased sub-dermal blood flow and increased dermal hydration of the subject; and

~~a processor adapted to receive an image of the subject from a camera, adapted to identify a first spectral reflection of the subject when the subject is unstressed and adapted to identify a second spectral reflection of the subject when stressed; and~~

~~the processor further adapted to compare an area of the image with the first and the second spectral reflections and adapted to indicate whether the subject is experiencing physiological stress based on which of the spectral reflections the image more closely coincides.~~

a processor adapted to receive said image and to compare the image to a base line reflectance spectrum to determine if said image has been created by said first

spectral reflection of light or said second spectral reflection of light, to determine if said subject is experiencing stress or is unstressed.

2. (currently amended) The system according to claim 1, ~~the second spectral reflection further comprising being coincident with one of a spectrum of sub-dermal blood flow and a spectrum of dermal hydration, whereby~~ wherein the second spectral reflection indicates a blush.

3. (currently amended) The system according to claim 1, the first and the second spectral reflections differing at a frequency selected from the group consisting of about 542 nanometers, about 560 nanometers, about 576 nanometers, about 1400 nanometers, and about 1700 nanometers, and ~~whereby~~ wherein the difference indicates a blush.

4. (previously presented) The system according to claim 1, the processor being coupled to the camera.

5. (previously presented) The system according to claim 1, the processor being coupled to an alarm and activating the alarm if the area of the image more closely coincides with the second spectral reflection.

6. (previously presented) The system according to claim 5, the processor being coupled to a time source, a date source, and a location source to enable the processor to associate the time, date, and location with the image.

7. (previously presented) The system according to claim 5, the system being installed in one of an airport, an interrogation room, and a store.

8. (cancelled)

9. (currently amended) The system according to claim 1, the processor being adapted to identify the first spectral reflection from a back of a hand of the subject.

10. (cancelled)

11. (currently amended) The system according to claim 1, the processor identifying the second spectral reflection from a palm of a hand of the subject.

12. (currently amended) A method for detecting physiological stress of a subject, the method comprising:

observing an image of the subject ~~with a system~~, the image of the subject being comprised of to include a first spectral reflection when the subject is ~~unstressed~~ not experiencing stress, and a second spectral reflection when the subject is stressed, the

second spectral reflection being caused by an increase in sub-dermal blood flow and an increase in dermal hydration of the subject indicating a skin blush of the subject; and
~~comparing an area of the image to the first spectral reflection with the system;~~
~~comparing the area of the image to the second spectral reflection with the~~
~~system; and~~
~~determining with the system with which of the spectral reflections the area of the~~
~~image more closely coincides to detect if the subject is experiencing stress;~~
analyzing the image against a base line reflectance spectrum to determine
whether the image represents said first or said second spectral reflection, to thus
determine if said subject is experiencing stress.

13. (cancelled)

14. (previously presented) The method according to claim 12, further comprising comparing the image with the first and the second spectral reflections near a frequency selected from the group consisting of about 542 nanometers, about 560 nanometers, about 576 nanometers, about 1400 nanometers, and about 1700 nanometers to determine a difference indicative of a blush of the subject.

15. (currently amended) The method according to claim 12, further comprising coupling a camera to the system ~~whereby, with the camera inputs~~ outputting the image to an input of the system.

16. (currently amended) The method according to claim 12, further comprising activating an alarm if the ~~area of the image more closely coincides with the second spectral reflection~~ more closely coincides with the base line reflectance spectrum than does the first spectral reflection.

17. (original) The method according to claim 16, further comprising associating a time, a date, and a location with the image.

18. (original) The method according to claim 16, further comprising installing the system in one of an airport, an interrogation room, and a store.

19. (previously presented) The method according to claim 12, further comprising identifying the first spectral reflection from the image in real time.

20. (currently amended) The method according to claim 19, further comprising identifying the first spectral ~~characteristic~~ reflection from a back of a hand of the subject.

21. (previously presented) The method according to claim 12, further comprising identifying the second spectral reflection from the image in real time.

22. (previously presented) The method according to claim 21, further comprising identifying the second spectral reflection from a palm of a hand of the subject.

23. (currently amended) A method for detecting physiological stress in a subject, comprising:

obtaining an image of a subject;

from said image, identifying a first and a second area of skin of the subject, the first area to be unlikely to blush when the subject is experiencing stress, the second area to be likely to blush when the subject is experiencing stress;

from said image, comparing the first and the second areas of skin; and

indicating whether the subject is experiencing physiological stress based on an attenuation at a pre-selected frequency of a light spectrum reflected from the first and the second areas of skin, as captured by said image, the attenuation being representative of a change in a reflected spectrum indicating a sub-dermal blood flow and a spectrum of dermal hydration, and the attenuation indicating a blush.

24. (cancelled)

25. (previously presented) The method according to claim 23, the attenuation occurring near a frequency selected from the group consisting of about 542 nanometers, about 560 nanometers, about 576 nanometers, about 1400 nanometers, and about 1700 nanometers.

26. (previously presented) The method according to claim 23, further comprising:

activating an alarm if the comparison indicates a blush.

27. (previously presented) The method according to claim 26, further comprising:

associating a time, a date, and a location of the subject with the image.

28. (cancelled)

29. (new) A method of detecting physiological stress of a subject based on an image of the subject, the method comprising:

obtaining an image of the subject, the image being produced at least in part by a spectral reflection of light from the subject, the spectral reflection of light comprising either:

a first reflectance spectrum when the subject is unstressed, or

a second reflectance spectrum when the subject is stressed, the second reflectance spectrum differing from the first spectral reflection of light because of sub-dermal blood flow and a spectrum of dermal hydration in the subject as the subject experiences stress; and

comparing the obtained spectral reflection of light that comprises the image with a base line reflectance spectrum to determine if the spectral reflection of light more closely matches the first or second reflectance spectrums, to thus determine if the subject is stressed or unstressed.